

Title of paper	Name of the Author/s	Department of the teacher	Name of journal	Year of publication	ISSN number	DOI			
Excitation wavelength and Eu <sup>3+</sup> / Tb <sup>3+</sup> content ratio dependent tunable photoluminescence from NaSrBO <sub>3</sub> : Eu <sup>3+</sup> /Tb <sup>3+</sup> phosphor or	A. K. Bedyal, D. D. Ramteke, Vinay Kumar & H. C. Swart	Physics and Astronomical Sciences	Journal of Materials Science: Materials in Electronics	2019	0957-4523	<a href="https://doi.org/10.1007/s10854-019-01533-4">https://doi.org/10.1007/s10854-019-01533-4</a>			
Excitation wavelength and Eu <sup>3+</sup> /Tb <sup>3+</sup> content ratio dependent tunable photoluminescence from NaSrBO <sub>3</sub> :Eu <sup>3+</sup> /Tb <sup>3+</sup> phosphor	A. K. Bedyal, D. D. Ramteke, Vinay Kumar, H. C. Swart,	Physics and Astronomical Sciences	Journal of Materials Science: Materials in Electronics	2019	0957-4522	<a href="https://doi.org/10.1007/s10854-019-01533-4">https://doi.org/10.1007/s10854-019-01533-4</a>			
Excitation wavelength and Eu <sup>3+</sup> /Tb <sup>3+</sup> content ratio dependent tunable photoluminescence from NaSrBO <sub>3</sub> :Eu <sup>3+</sup> /Tb <sup>3+</sup> phosphor	A. K. Bedyal, D. D. Ramteke, Vinay Kumar, H. C. Swart,	Physics and Astronomical Sciences	Journal of Materials Science: Materials in Electronics	2019	0957-4523	<a href="https://doi.org/10.1007/s10854-019-01533-4">https://doi.org/10.1007/s10854-019-01533-4</a>			
Thermoluminescence response and kinetic parameters of UV irradiated K <sub>3</sub> La(PO <sub>4</sub> ) <sub>2</sub> : Pr <sup>3+</sup> phosphor,	A. K. Bedyal, Vinay Kumar, and H. C. Swart,	Physics and Astronomical Sciences	AIP Conference Proceedings	2018	0094243X	<a href="https://doi.org/10.1063/1.5051256">https://doi.org/10.1063/1.5051256</a>			
Effects of cationic substitution on the luminescence behavior of Dy <sup>3+</sup> doped orthophosphate phosphor	A.K. Bedyal, A.K. Kunti, Vinay Kumar, H.C. Swart,	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2019	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2019.07.305">https://doi.org/10.1016/j.jallcom.2019.07.305</a>			
Blue photons excited highly chromatic red light emitting K <sub>3</sub> La(PO <sub>4</sub> ) <sub>2</sub> :Pr <sup>3+</sup> phosphors for white light emitting diodes,	A.K. Bedyal, D.D. Ramteke, Vinay Kumar, H.C. Swart,	Physics and Astronomical Sciences	Materials Research Bulletin	2018	255408	<a href="https://doi.org/10.1016/j.materresbull.2018.03.034">https://doi.org/10.1016/j.materresbull.2018.03.034</a>			
Effects of cationic substitution on the luminescence behaviour of Dy <sup>3+</sup> doped orthophosphate phosphor	A.K. Bedyal A.K. Kunti Vinay Kumar H.C. Swarta	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2019	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2019.07.305">https://doi.org/10.1016/j.jallcom.2019.07.305</a>			
Synthesis and optical studies of KCaVO <sub>4</sub> : Sm <sup>3+</sup> /PMMA nanocomposites	A.K. Bedyal Vinay Kumar H.C. Swarta	Physics and Astronomical Sciences	Vacuum	2019	1879-2715	<a href="https://doi.org/10.1016/j.vacuum.2018.10.069">https://doi.org/10.1016/j.vacuum.2018.10.069</a>			
Structural and spectral studies of highly pure red-emitting Ca <sub>3</sub> B <sub>2</sub> O <sub>6</sub> :Eu <sup>3+</sup> phosphors for white light emitting diodes	A.K. Bedyal, Sukhbir Singh, Anurag Srivastava, H.C. Swart, Vinay Kumar	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2021	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2021.159363">https://doi.org/10.1016/j.jallcom.2021.159363</a>			
Theoretical investigation of nuclear structure properties of <sup>144</sup> Gd, <sup>146</sup> Dy and <sup>148</sup> Er isotones	Amit Kumar, Dhanvir Singh, Surbhi Gupta, Suram Singh, and Arun Bharti	Physics and Astronomical Sciences	AIP Conference Proceedings	2018	0094243X	<a href="https://doi.org/10.1063/1.5051258">DOI:10.1063/1.5051258</a>			
Modification in properties of barium titanate on Sm <sup>3+</sup> substitution	Amit Tomar, Meetesh Singh, Suram Singh, Lokesh Sharma, Sandeep Arya, Sanyogita Kasana	Physics and Astronomical Sciences	AIP Conference Proceedings	2018	0094243X	<a href="https://doi.org/10.1080/00150193.2017.1362300">https://doi.org/10.1080/00150193.2017.1362300</a>			
Ultraviolet Quantum Cutting through down Conversion Luminescence Behaviour of Er <sup>3+</sup> Substituted Sr <sub>0.7</sub> Bi <sub>0.2</sub> Nb <sub>2</sub> O <sub>9</sub> (BLFS) Ceramics	Amit Tomar, Meetesh Singh, Suram Singh, Lokesh Sharma, Sandeep Arya, Sanyogita Kasana	Physics and Astronomical Sciences	Integrated Ferroelectrics	2020	1607-8493	<a href="https://doi.org/10.1080/10584587.2019.1674983">https://doi.org/10.1080/10584587.2019.1674983</a>			

Optical tunability in Er <sup>3+</sup> substituted Sr <sub>0.7</sub> Bi <sub>2.2</sub> Nb <sub>2</sub> O <sub>9</sub> (BLFS) multifunctional ceramics	Amit Tomar, Meetesh, Sanyogita Kasana, and R. P. Tandon	Physics and Astronomical Sciences	AIP Conference Proceedings	2018	0094243X	<a href="https://doi.org/10.1063/1.5051288">https://doi.org/10.1063/1.5051288</a>			
Synthesis, structural and morphological studies of Er <sup>3+</sup> substituted bismuth layered perovskite Sr <sub>0.7</sub> Bi <sub>2.2</sub> Nb <sub>2</sub> O <sub>9</sub> ceramic	Amit Tomar, Meetesh, Sanyogita Kasana, Lokesh Sharma, Anilesh, and R. P. Tandon	Physics and Astronomical Sciences	AIP Conference Proceedings	2018	0094243X	<a href="https://doi.org/10.1063/1.5051283">https://doi.org/10.1063/1.5051283</a>			
Improved properties in Dy <sup>3+</sup> substituted barium titanate	Amit Tomar, R.P Tandon, Poonam Pahuja	Physics and Astronomical Sciences	Integrated Ferroelectrics	2018	1058-4587	<a href="https://doi.org/10.1080/10584587.2017.1369745">https://doi.org/10.1080/10584587.2017.1369745</a>			
Band structure of neutron-deficient iodine nucleus	Anuradha Gupta, Surbhi Gupta, Suram Singh, and Arun Bharti	Physics and Astronomical Sciences	AIP Conference Proceedings	2018	0094243X	<a href="https://doi.org/10.1063/1.5051262">DOI:10.1063/1.5051262</a>			
Study of yrast structure of odd-odd 94Nb nucleus	Arun Gupta, Amit Kumar, Surbhi Gupta, Suram Singh, and Arun Bharti	Physics and Astronomical Sciences	AIP Conference Proceedings	2020	0094243X	<a href="https://doi.org/10.1063/5.0001821">DOI:10.1063/5.0001821</a>			
Theoretical analysis of shape transition and axial asymmetry in even-even Yb isotopes	Arun Gupta, Surbhi Gupta, Ridham Bakshi, Suram Singh and co-authors	Physics and Astronomical Sciences	The European Physical Journal Plus	2023	2190-5444	<a href="https://doi.org/10.1140/epjp/s13360-023-04404-4">10.1140/epjp/s13360-023-04404-4</a>			
Sol-gel synthesis of Zn doped MgO nanoparticles and their applications	Asha Sharma, Sandeep Arya, Bikram Singh, Prerna, Amit Tomar, Suram Singh, Rakesh	Physics and Astronomical Sciences	Integrated Ferroelectrics	2020	1607-8491	<a href="https://doi.org/10.1080/10584587.2019.1674993">https://doi.org/10.1080/10584587.2019.1674993</a>			
Template Based Electrochemical Synthesis of Copper (Cu) Nanowires as CH <sub>2</sub> Cl <sub>2</sub> Sensor	Asha Sharma, Sandeep Arya, Bikram Singh, Prerna, Amit Tomar, Suram Singh, Rakesh	Physics and Astronomical Sciences	Integrated Ferroelectrics	2020	1607-8492	<a href="https://doi.org/10.1080/10584587.2019.1674990">https://doi.org/10.1080/10584587.2019.1674990</a>			
Ion dynamics and electrical transport in lanthanum silicate apatite (La <sub>9.67</sub> Si <sub>6</sub> O <sub>26.5</sub> )	Ashish Kr Yadav, Onkar Nath Verma, Raghvendra Pandey, Neetu Jha, Prabhakar Singh	Physics and Astronomical Sciences	Applied physics A	2022	0947-8396	<a href="https://doi.org/10.1007/s00339-022-05963-6">https://doi.org/10.1007/s00339-022-05963-6</a>			
Blistering study of H-implanted InGaAs for potential heterointegration applications	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Semiconductor Science and Technology	2011	1361-6641	10.1088/0268-1242/26/8/085032			
Defect formation in GaN epitaxial layers due to swift heavy ion irradiation	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Radiation Effects and Defects in Solids	2011	1029-4953	10.1080/10420150.2011.569716			
Electrical and microstructural analyses of 200 MeV Ag <sup>14+</sup> ion irradiated Ni/GaN Schottky barrier diode	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Applied Physics Letters	2012	1077-3118	10.1063/1.4758929			
Temperature dependence of electrical characteristics of Pt/GaN Schottky diode fabricated by UHV e-beam evaporation	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Nanoscale Research Letters	2013	1556-276X	10.1186/1556-276x-8-481			

Micro-structural and temperature dependent electrical characterization of Ni/GaN Schottky barrier diodes	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Current Applied Physics	2013	1567-1739	10.1016/j.cap.2013.03.009			
Ion beam-generated surface ripples: new insight in the underlying mechanism	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Nanoscale Research Letters	2013	1556-276X	10.1186/1556-276x-8-336			
An approach to tune the amplitude of surface ripple patterns	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Applied Physics Letters	2013	1077-3118	10.1063/1.4822302			
Role of ion beam induced solid flow in surface patterning of Si (100) using Ar ion beam irradiation	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Applied Surface Science	2013	0169-4332	10.1016/j.apsusc.2013.06.124			
Barrier height enhancement of Ni/GaN Schottky diode using Ru based passivation scheme	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Applied Physics Letters	2014	1077-3118	10.1063/1.4870624			
Dynamics of modification of Ni/n-GaN Schottky barrier diodes irradiated at low temperature by 200 MeV Ag <sup>14+</sup> ions	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Applied Physics Letters	2014	1077-3118	10.1063/1.4862471			
Sulphide passivation of GaN based Schottky diodes	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Current Applied Physics	2014	1567-1739	10.1016/j.cap.2013.12.021			
XPS study of triangular GaN nano/micro-needles grown by MOCVD technique	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Materials Science and Engineering: B	2014	0921-5107	10.1016/j.mseb.2014.03.010			
Role of growth temperature on the structural, optical and electrical properties of ZnO thin films	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2015	0925-8388	10.1016/j.jallcom.2015.06.218			
Studies on the Thermal Stability of Ni/n-GaN and Pt/n-GaN Schottky Barrier Diodes	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Materials Research Express	2016	2053-1591	10.1088/2053-1591/3/8/085901			
Structural, morphological, electrical and dielectric properties of Mn doped CeO <sub>2</sub>	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2016	0925-8388	10.1016/j.jallcom.2016.02.153			
Structural, electrical and magnetic properties of dilutely Y doped NiFe <sub>2</sub> O <sub>4</sub> nanoparticles	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2016	0925-8388	10.1016/j.jallcom.2016.05.248			
Understanding the origin of ferromagnetism in Er-doped ZnO system	Ashish Kumar and co-authors	Physics and Astronomical Sciences	RSC Advances	2016	2046-2069	10.1039/c6ra17761a			
Nano-pits on GaAs (1 0 0) surface: Preferential sputtering and diffusion	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms	2016	0168-583X	10.1016/j.nimb.2016.03.053			
Enhancement of thermopower in GaN by ion irradiation and possible mechanisms	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Applied Physics Letters	2017	1077-3118	10.1063/1.4996410			
Influence of High Dose Gamma Irradiation on Electrical Characteristics of Si Photo Detectors	Ashish Kumar and co-authors	Physics and Astronomical Sciences	ECS Journal of Solid State Science and Technology	2017	2162-8777	10.1149/2.0111710jss			

Structural, optical and magnetic properties of N ion implanted CeO <sub>2</sub> thin films	Ashish Kumar and co-authors	Physics and Astronomical Sciences	RSC Advances	2017	2046-2069	10.1039/c6ra17069b			
Engineering of electronic properties of single layer graphene by swift heavy ion irradiation	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Journal of Applied Physics	2017	1089-7550	10.1063/1.4991990			
High-performance radiation stable ZnO/Ag/ZnO multilayer transparent conductive electrode	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Solar Energy Materials and Solar Cells	2017	0927-0248	10.1016/j.solmat.2017.05.009			
Investigations on structural and magnetic properties of Mn doped Er <sub>2</sub> O <sub>3</sub>	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Solid State Sciences	2017	1293-2558	10.1016/j.solidstatesciences.2017.03.003			
Identification of Swift Heavy Ion Induced Defects in Pt/n-GaN Schottky Diodes by in-situ Deep Level Transient Spectroscopy	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Semiconductor Science and Technology	2018	1361-6641	10.1088/1361-6641/aacd54			
In-situ transport and microstructural evolution in GaN Schottky diodes and epilayers exposed to swift heavy ion irradiation	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Journal of Applied Physics	2018	1089-7550	10.1063/1.4995491			
Effect of $\gamma$ -ray irradiation on Schottky and ohmic contacts on AlGaIn/GaN hetero-structures	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Microelectronics Reliability	2019	0026-2714	<a href="https://doi.org/10.1016/j.microrel.2019.113565">https://doi.org/10.1016/j.microrel.2019.113565</a>			
Tuning the Electrical and Thermoelectric Properties of N Ion Implanted SrTiO <sub>3</sub> Thin Films and Their Conduction Mechanisms	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Scientific reports	2019	2045-2322	<a href="https://doi.org/10.1063/1.5116186">https://doi.org/10.1063/1.5116186</a>			
Apparatus for Seebeck coefficient measurement of wire, thin film, and bulk materials in the wide temperature range (80–650 K)	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Review of Scientific Instruments	2019	1089-7623	10.1063/1.5116186			
Investigations on magnetic and electrical properties of Zn doped Fe <sub>2</sub> O <sub>3</sub> nanoparticles and their correlation with local electronic structures	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Journal of Magnetism and Magnetic Materials	2019	0304-8853	10.1016/j.jmmm.2019.165398			
Effect of Fe ion implantation on the thermoelectric properties and electronic structures of CoSb <sub>3</sub> thin films	Ashish Kumar and co-authors	Physics and Astronomical Sciences	RSC Advances	2019	2046-2069	10.1039/c9ra06873b			
Influence of barrier inhomogeneities on transport properties of Pt/MoS <sub>2</sub> Schottky barrier junction	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2019	0925-8388	10.1016/j.jallcom.2019.05.028			
Gamma Irradiation Effect on Performance of $\beta$ -Ga <sub>2</sub> O <sub>3</sub> Metal-Semiconductor-Metal Solar-Blind Photodetectors for Space Applications	Ashish Kumar and co-authors	Physics and Astronomical Sciences	ECS Journal of Solid State Science and Technology	2019	2162-8777	10.1149/2.0291907jss			
Radiation stability and reliability of Cu–ZnO/P3OT hybrid heterostructures under swift heavy ion irradiations	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Materials Science in Semiconductor Processing	2020	1369-8001	10.1016/j.mssp.2019.104885			

Understanding the role of structural distortions on the transport properties of Ar ion irradiated SrTiO3 thin films: X-ray absorption investigation	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Journal of Applied Physics	2021	1089-7550	10.1063/5.0067510			
Defects assisted structural and electrical properties of Ar ion irradiated TiO2/SrTiO3 bilayer	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Materials Letters	2021	0167-577X	10.1016/j.matlet.2020.128880			
Thermoelectric properties of GaN with carrier concentration modulation: an experimental and theoretical investigation	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Physical Chemistry Chemical Physics	2021	1463-9076	10.1039/d0cp03950k			
Wide range temperature-dependent (80–630 K) study of Hall effect and the Seebeck coefficient of $\beta$ -Ga2O3 single crystals	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Applied Physics Letters	2021	1077-3118	10.1063/5.0043903			
Enhancement in thermoelectric properties of n-type (La0.7Sr0.3MnO3)0.5.(NiO)0.5 : composite and nano-structure effect	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Journal of Physics D: Applied Physics	2021	0022-3727	10.1088/1361-6463/ac3171			
Impact of swift heavy oxygen ion irradiation on the performance of Pt/GaN Schottky diodes and epitaxial layers: A comparative study	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Journal of Applied Physics	2023	1089-7550	<a href="https://doi.org/10.1063/5.0171363">https://doi.org/10.1063/5.0171363</a>			
In situ IV and CV characterization of Pt/n-GaN Schottky barrier diodes irradiated by 100 MeV oxygen ions	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Journal of Materials Science: Materials in Electronics	2023	1573-482X	10.1007/s10854-023-11227-7			
Surface states passivation in GaN single crystal by ruthenium solution	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Applied Physics Letters	2023	1077-3118	10.1063/5.0134242			
Fractal characterizations of MeV ion treated CaF2 thin films	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Chaos: An Interdisciplinary Journal of Nonlinear Science	2023	1089-7682	10.1063/5.0135127			
Impact of swift heavy oxygen ion irradiation on the performance of Pt/GaN Schottky diodes and epitaxial layers: A comparative study	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Journal of Applied Physics	2023	1089-7550	10.1063/5.0171363			
First-Principles Study on Electronic and Thermal Transport Properties of FeRuTiX Quaternary Heusler Compounds (X=Si, Ge, Sn)	Ashish Kumar and co-authors	Physics and Astronomical Sciences	Zeitschrift für anorganische und allgemeine Chemie	2023	1521-3749	10.1002/zaac.202300080			
Critical Pólya urn	Avinash Chand Yadav	Physics and Astronomical Sciences	Physical Review E	2018	2470-0053	<a href="https://doi.org/10.1103/PhysRevE.98.022119">https://doi.org/10.1103/PhysRevE.98.022119</a>			
Scaling in simple continued fraction	Avinash Chand Yadav	Physics and Astronomical Sciences	Journal of Physics A:Mathematical and Theoretical	2020	1742-6596	<a href="https://doi.org/10.1088/1751-8121/ab6513">https://doi.org/10.1088/1751-8121/ab6513</a>			

Scaling in simple continued fraction	Avinash Chand Yadav	Physics and Astronomical Sciences	Journal of Physics A:Mathematical and Theoretical	2020	1742-6596	<a href="https://doi.org/10.1088/1751-8121/ab6513">https://doi.org/10.1088/1751-8121/ab6513</a>			
Non-volatile resistive switching memory device based on ZnO-graphene oxide embedded in a polymer matrix fabricated on a flexible PET substrate	Jehova Jire L Hmar	Physics and Astronomical Sciences	Microelectronic Engineering	2020	0167-9317	<a href="https://doi.org/10.1016/j.mee.2020.111436">https://doi.org/10.1016/j.mee.2020.111436</a>			
Resistive switching memory devices using ZnO nanoparticles encapsulated in polyvinyl alcohol (PVA) matrix	Jehova Jire L.Hmar	Physics and Astronomical Sciences	AIP Conference Proceedings	2018	0094243X	<a href="https://doi.org/10.1063/1.5051279">https://doi.org/10.1063/1.5051279</a>			
Non-volatile resistive switching memory device based on ZnO-graphene oxide embedded in a polymer matrix fabricated on a flexible PET substrate	Jehova Jire L.Hmar	Physics and Astronomical Sciences	Microelectronic Engineering	2020	0167-9317	<a href="https://doi.org/10.1016/j.mee.2020.111436">https://doi.org/10.1016/j.mee.2020.111436</a>			
Non-volatile resistive switching memory device based on ZnO-graphene oxide embedded in a polymer matrix fabricated on a flexible PET substrate	Jehova Jire L.Hmar	Physics and Astronomical Sciences	Microelectronic Engineering	2020	0167-9318	<a href="https://doi.org/10.1016/j.mee.2020.111436">https://doi.org/10.1016/j.mee.2020.111436</a>			
Non-volatile resistive switching memory device based on ZnO-graphene oxide embedded in a polymer matrix fabricated on a flexible PET substrate	Jehova Jire L.Hmar	Physics and Astronomical Sciences	Microelectronic Engineering	2020	0167-9317	<a href="https://doi.org/10.1016/j.mee.2020.111436">https://doi.org/10.1016/j.mee.2020.111436</a>			
Non-volatile resistive switching memory device based on ZnO-graphene oxide embedded in a polymer matrix fabricated on a flexible PET substrate	Jehova Jire L.Hmar	Physics and Astronomical Sciences	Microelectronic Engineering	2020	0167-9318	<a href="https://doi.org/10.1016/j.mee.2020.111436">https://doi.org/10.1016/j.mee.2020.111436</a>			
Triaxial projected shell model study of $\gamma$ -bands in even even 104–122Cd nuclei	Manvi rajput, Suram singh and co-authors	Physics and Astronomical Sciences	Nuclear Physics A	2022	0375-9474	<a href="https://doi.org/10.1016/j.nuclphysa.2022.122383">10.1016/j.nuclphysa.2022.122383</a>			
Theoretical study of nuclear structure properties of positive parity states of odd mass 103-117Ag nuclei	Manvi Rajput, Suram Singh and co-authors	Physics and Astronomical Sciences	European Physical Journal A	2022	1434-6001	<a href="https://doi.org/10.1140/epja/s10050-022-00802-x">10.1140/epja/s10050-022-00802-x</a>			
Recent progress, fabrication challenges and stability issues of lead-free tin-based perovskite thin films in the field of photovoltaics	Manvi Rajputa, Preeti Verma, Suram Singh, Veerta Rani, Arun Bharti, G.H. Bhat, J.A.Sheikh	Physics and Astronomical Sciences	Coordination Chemistry Reviews	2021	108-546	<a href="https://doi.org/10.1016/j.ccr.2020.213633">https://doi.org/10.1016/j.ccr.2020.213633</a>			
Microscopic insight into the structure of negative parity yrast bands in 99–117Pd isotopes,	ManviRajput, PreetiVerma, SuramSingh, VeertaRani ArunBharti, G.H. Bhat, J.A.Sheikhd	Physics and Astronomical Sciences	Nuclear Physics A,	2021	1434-601X	<a href="http://dx.doi.org/10.1016/j.nuclphysa.2021.122253">http://dx.doi.org/10.1016/j.nuclphysa.2021.122253</a>			
Synthesis and trobological investigation of Al-SiC based nano hybrid composite,	Navdeep S Jamwal, Mir Irfan UI Haq, Ankush Raina, Ankush Anand, Vinay Kumar	Physics and Astronomical Sciences	Alexandria Engineering Journal	2018	1110-0168	<a href="https://doi.org/10.1016/j.aej.2017.05.008">https://doi.org/10.1016/j.aej.2017.05.008</a>			
Synthesis and trobological investigation	NavdeepSingh	Physics and Astronomical Sciences	Alexandria Engineering Journal	2019	1110-0168	<a href="https://doi.org/10.1016/j.aej.2017.05.008">https://doi.org/10.1016/j.aej.2017.05.008</a>			
Energy fluctuations in one dimensional Zhang sandpile model	Naveen Kumar, Suram Singh, Avinash Yadav	Physics and Astronomical Sciences	Journal of Statistical Mechanics Theory and Experiment	2022	1742-5468	<a href="https://doi.org/10.1088/1742-5468/ac7aa8">10.1088/1742-5468/ac7aa8</a>			

Microscopic, elemental and molecular spectroscopic investigations of rootknot nematode infested okra plant roots,	Neha Sharma, Yugal Khajuria, Jitendra Sharma, Durgesh K. Tripathi, Devendra K. Chauhan, Virendra K. Singh, Vinay Kumar, Vivek K. Singh,	Physics and Astronomical Sciences	Vacuum	2018	0042-207X	<a href="https://doi.org/10.1016/j.vacuum.2018.09.039">https://doi.org/10.1016/j.vacuum.2018.09.039</a>			
Synthesis and thermoluminescence studies of UV-C exposed Li <sub>4</sub> Ca(BO <sub>3</sub> ) <sub>2</sub> :Dy <sup>3+</sup> phosphors,	Neharika, J. Sharma, Vishal Sharma, A.K. Bedyal, H.C. Swart, Vinay Kumar,	Physics and Astronomical Sciences	Vacuum	2018	0042-207X	<a href="https://doi.org/10.1016/j.vacuum.2018.08.003">https://doi.org/10.1016/j.vacuum.2018.08.003</a>			
Surface and spectral studies of Sm <sup>3+</sup> doped Li <sub>4</sub> Ca(BO <sub>3</sub> ) <sub>2</sub> phosphors for white light emitting diodes ,	Neharika, V.K. Singh, J. Sharma, A.K. Bedyal, Vinay Kumar, H.C. Swart,	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2018	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2017.12.118">https://doi.org/10.1016/j.jallcom.2017.12.118</a>			
A potential amber-emitting KCaVO <sub>4</sub> :Sm <sup>3+</sup> nanophosphor for near-UV LEDs,	Pankaj Biswas, Vinay Kumar,	Physics and Astronomical Sciences	AIP Conference Proceedings	2018	0094243X	<a href="https://doi.org/10.1063/1.5032541">https://doi.org/10.1063/1.5032541</a>			
Influence of addition of nanoparticles of magnetic phase on structural, microstructural and dielectric properties of multiferroic composites	Poonam Pahuja, Amit Tomar, RP Tandon	Physics and Astronomical Sciences	Integrated Ferroelectrics	2019	1607-8489	<a href="https://doi.org/10.1080/10584587.2019.1674948">https://doi.org/10.1080/10584587.2019.1674948</a>			
Microscopic insight into low level systematics and negative-parity Yrast bands in odd-mass <sup>111-127</sup> Cd	Preeti Verma, Suram Singh, Arun Bharti and S. K. Khosa	Physics and Astronomical Sciences	The European Physical Journal Plus	2019	2190-5444	<a href="https://doi.org/10.1140/epjp/i2019-12857-9">DOI:10.1140/epjp/i2019-12857-9</a>			
Microscopic insight into low level systematics and negative-parity yrast bands in odd-mass <sup>111-127</sup> Cd	Preeti Verma, Suram Singh, Arun Bharti and S. K. Khosa	Physics and Astronomical Sciences	European Physical Journal Plus	2019	2190-5444	<a href="https://doi.org/10.1140/epjp/i2019-12857-9">DOI:10.1140/epjp/i2019-12857-9</a>			
Microscopic insight into the nuclear structure properties of odd-mass <sup>101-109</sup> Cd isotopes	Preeti Verma*, Arun Bharti, S.K. Khosa, G.H. Bhat and J.A. Sheikh	Physics and Astronomical Sciences	Nuclear Physics A	2019	0375-9474	<a href="https://doi.org/10.1016/j.nuclphysa.2019.03.013">https://doi.org/10.1016/j.nuclphysa.2019.03.013</a>			
Microscopic study of ground state bands in N = 45 and 46 isotones in mass region A ~ 70–80	Preeti Verma <sup>1</sup> , Suram Singh <sup>1</sup> , Arun Bharti <sup>2</sup> and S K Khosa <sup>3,1</sup>	Physics and Astronomical Sciences	Journal of Physics G Nuclear and Particle Physics	2020	0954-3899	<a href="https://doi.org/10.1088/1361-6471/ab6ee0">DOI:10.1088/1361-6471/ab6ee0</a>			
Microscopic Insight into the Nuclear Structure Properties of Odd-mass <sup>101-109</sup> Cd Isotopes	Preeti Verma, Suram Singh, Arun Bharti S.K. Khosa G.H. Bhat J.A. Sheikh	Physics and Astronomical Sciences	Nuclear Physics A	2019	0375-9474	<a href="https://doi.org/10.1016/j.nuclphysa.2019.03.013">DOI:10.1016/j.nuclphysa.2019.03.013</a>			
<u>Linking space-time correlations for a class of self-organized critical systems</u>	Prerna Mahajan, Ram Datt, Wing Chung Tsoi, Vinay Gupta, Amit Tomar, Sandeep Arya	Physics and Astronomical Sciences	Coordination Chemistry Reviews	2021	108-545	<a href="http://dx.doi.org/10.1103/PhysRevE.104.064132">http://dx.doi.org/10.1103/PhysRevE.104.064132</a>			
Morphological and optical characterization of sol-gel synthesized Ni-doped ZnO nanoparticles	Prerna, Sandeep Arya, Asha Sharma, Bikram Singh, Amit Tomar, Suram Singh, Rakesh	Physics and Astronomical Sciences	Integrated Ferroelectrics	2020	1607-8490	<a href="https://doi.org/10.1080/10584587.2019.1674992">https://doi.org/10.1080/10584587.2019.1674992</a>			

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Study of Nuclear Structure of Neutron-Rich Even-Even Tungsten Nuclei Within Theoretical Framework	Rajat Gupta, Ridham Bakshi, Amit Kumar, Suram Singh and co-authors	Physics and Astronomical Sciences	Brazilian Journal of Physics	2022	0103-9733	<a href="https://doi.org/10.1007/s13538-022-01173-w">10.1007/s13538-022-01173-w</a>			
Systematic investigation of $\gamma$ -band structure of triaxial even-even neutron-deficient Os nuclei,	RajatGuptaaAmitKumarSuramSinghArjunBhartiaG.H. BhatbJ.A.Sheik	Physics and Astronomical Sciences	Chinese Journal of Physics	2021	0375-9474	<a href="http://dx.doi.org/10.1016/j.cjph.2021.04.023">http://dx.doi.org/10.1016/j.cjph.2021.04.023</a>			
Spectral properties of Dy <sup>3+</sup> doped ZnAl <sub>2</sub> O <sub>4</sub> phosphor	Ram Prakash, Sandeep Kumar, Rubby Mahajan, Pooja Khajuria, Vinay Kumar, R. J. Choudhary, and D. M. Phase,	Physics and Astronomical Sciences	AIP Conference Proceedings	2018	0094243X	<a href="https://doi.org/10.1063/1.5032375">https://doi.org/10.1063/1.5032375</a>			
Structural evolution and shape transitions of even-even neutron rich 140-150 Ba nuclei using triaxial projected shell model	Ridham Bakshi, Rajat Gupta, Amit Kumar, Suram Singh and co-authors	Physics and Astronomical Sciences	European Physical Journal A	2022	1434-6001	<a href="https://doi.org/10.1140/epja/s10050-022-00902-8">10.1140/epja/s10050-022-00902-8</a>			
Microscopic insights into the nuclear structure of 98–106Ru nuclei	Ridham bakshi, Rajat Gupta, Surbhi Gupta, Amit Kumar, Suram Singh and co-authors	Physics and Astronomical Sciences	European Physical Journal A	2022	1434-6001	<a href="https://doi.org/10.1140/epja/s10050-022-00734-6">10.1140/epja/s10050-022-00734-6</a>			
Quasi-particle structure of even-even cerium isotopes in a self consistent approach	Ridham Bakshi, Surbhi Gupta, Simi Gupta, Suram Singh, Arun Bharti	Physics and Astronomical Sciences	AIP Conference Proceedings	2020	0094243X	<a href="https://doi.org/10.1063/5.0001725">DOI:10.1063/5.0001725</a>			
A detailed study of nuclear structure of odd-mass Pm isotopes near N = 82 shell closure,	Ridham Bakshi, Surbhi Gupta, Suram Singh, Amit Kumar, Arun Bharti, G. H. Bhat & J. A. Sheikh	Physics and Astronomical Sciences	The European Physical Journal Plus	2021	2190-5444	<a href="http://dx.doi.org/10.1140/epjp/s13360-020-00974-9">http://dx.doi.org/10.1140/epjp/s13360-020-00974-9</a>			
Phenomenological description of non-axial shapes of some doubly even neutron deficient barium isotopes	Ridham Bakshi, Surbhi Gupta, Suram Singh, Arun Bharti, G H Bhat and J A Sheikh	Physics and Astronomical Sciences	Journal of Physics G Nuclear and Particle Physics	2020	0954-3899	<a href="https://doi.org/10.1088/1361-6471/ab81dd">DOI:10.1088/1361-6471/ab81dd</a>			
Synthesis and luminescent properties of Sm <sup>3+</sup> doped zinc aluminate phosphor,	Rubby Mahajan, Sandeep Kumar, Ram Prakash, and Vinay Kumar,	Physics and Astronomical Sciences	AIP Conference Proceedings	2018	0094243X	<a href="https://doi.org/10.1063/1.5032544">https://doi.org/10.1063/1.5032544</a>			
X-ray photoemission and spectral investigations of Dy <sup>3+</sup> activated magnesium pyrophosphate phosphors,	Rubby Mahajan, Sandeep Kumar, Ram Prakash, Vinay Kumar, R.J. Choudhary, D.M. Phase	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2019	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2018.10.355">https://doi.org/10.1016/j.jallcom.2018.10.355</a>			



X-ray photoemission and spectral investigations of Dy <sup>3+</sup> activated magnesium pyrophosphate phosphors	RubbyMahajan SandeepKumar RamPrakash VinayKumar R.J. Choudhary D.M. Phasec	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2019	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2018.10.355">https://doi.org/10.1016/j.jallcom.2018.10.355</a>			
Surface and luminescent properties of Mg <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> :Dy <sup>3+</sup> phosphors	RubbyMahajanaRam PrakashaSandeepKu marabVinayKumarc R.J.Choudhary	Physics and Astronomical Sciences	Optik	2021	0030-4026	<a href="https://doi.org/10.1016/j.ijleo.2020.165717">https://doi.org/10.1016/j.ijleo.2020.165717</a>			
Titanium Dioxide (TiO <sub>2</sub> ) Sensitized Zinc Oxide (ZnO)/Conducting Polymer Nanocomposites for Improving Performance of Hybrid Flexible Solar Cells	S Pathania, J J L. Hmar, B Verma, T Majumder, Vinay Kumar & P. Chinnamuthu	Physics and Astronomical Sciences	Journal of Electronic Materials	2022	0957-4522	<a href="http://dx.doi.org/10.1007/s11664-022-09815-0">http://dx.doi.org/10.1007/s11664-022-09815-0</a>			
Development of La and Mo Co-Doped SrTiO <sub>3</sub> as Novel Anode Material for Solid Oxide Fuel Cell Applications	Saurabh Singh, Raghvendra pandey, Onkar Nath Verma, Prabhakar Singh	Physics and Astronomical Sciences	AFMD conference paper	2021	2662-317X	<a href="https://link.springer.com/chapter/10.1007/978-981-16-5971-3_31">https://link.springer.com/chapter/10.1007/978-981-16-5971-3_31</a>			
Theoretical perspectives of nuclear structure in 82–88Ge and 66–74Se isotopes	Simi Gupta, Ridham Bakshi, Surbhi Gupta, Suram Singh and co-authors	Physics and Astronomical Sciences	European Physical Journal A	2023	1434-6001	<a href="https://doi.org/10.1140/epja/s10050-023-01166-6">10.1140/epja/s10050-023-01166-6</a>			
Variation of annual indoor and outdoor gamma dose rate in lower Himalayan region of Reasi district of Jammu and Kashmir, India	Sumit Sharma, Ajay Kumar, Dinesh Kumar Sharma	Physics and Astronomical Sciences	Radiation Protection and Environment	2023	0972-0464	<a href="http://doi.org/10.4103/rpe.rpe_32_22">http://doi.org/10.4103/rpe.rpe_32_22</a>			
Analysis of band structure of 85,87Zr	Suram Singh and Co - Authours	Physics and Astronomical Sciences	AIP Conference Proceedings	2018	0094243X	<a href="https://doi.org/10.1063/1.5051259">DOI:10.1063/1.5051259</a>			
Microscopic study of ground state bands in N = 45 and 46 isotones in mass region A ~ 70–80	Suram Singh co- authors	Physics and Astronomical Sciences	Journal of Physics G	2020	1361-6471	<a href="https://doi.org/10.1088/1361-6471/ab6ee0">https://doi.org/10.1088/1361-6471/ab6ee0</a>			
Phenomenological description of non-axial shapes of some doubly even neutron deficient barium isotopes	Suram Singh co- authors	Physics and Astronomical Sciences	Journal of Physics G	2020	1361-6471	<a href="https://doi.org/10.1088/1361-6471/ab81dd">https://doi.org/10.1088/1361-6471/ab81dd</a>			
Evolution of intrinsic nuclear structure in medium mass even-even Xenon isotopes from a microscopic perspective	Suram Singh co- authors	Physics and Astronomical Sciences	Chinese Physics C	2020	1674-1137	<a href="https://doi.org/10.1088/1674-1137/44/7/074108">https://doi.org/10.1088/1674-1137/44/7/074108</a>			
Systematic study of odd-mass 151-161Pm and 154,156Pm isotopes using projected shell model	Suram Singh co- authors	Physics and Astronomical Sciences	Chinese Physics C	2020	1674-1137	<a href="https://doi.org/10.1088/1674-1137/44/9/094107">https://doi.org/10.1088/1674-1137/44/9/094107</a>			
Investigation of quasi-particle structure of proton-hole indium nuclei	Suram Singh, Amit Kumar, Surbhi Gupta, A run Bharti	Physics and Astronomical Sciences	European Physical Journal Plus	2018	2190-5444	<a href="https://doi.org/10.1140/epjp/i2018-12271-y">DOI:10.1140/epjp/i2018-12271-y</a>			
Microscopic insight into the quasi-particle structure of odd-mass terbium isotopes	Suram Singh, Arun Gupta, Amit Kumar, Surbhi Gupta, Arun Bharti, G.H. Bhat, and J.A. Sheikh	Physics and Astronomical Sciences	Chinese Journal of Physics	2019	0577-9073	<a href="https://doi.org/10.1016/j.cjph.2019.08.005">https://doi.org/10.1016/j.cjph.2019.08.005</a>			

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Rotational structure of the odd-odd nuclide <sup>86</sup> Rb	Surbhi Gupta, Rajat Gupta, Amit Kumar, Dhanvir Singh, Anuradha Gupta, Suram Singh, and Arun Bharti	Physics and Astronomical Sciences	AIP Conference Proceedings	2018	0094243X	<a href="https://doi.org/10.1063/1.5051267">DOI:10.1063/1.5051267</a>			
Systematic study of two-quasiparticle structure of the neutron-rich odd-odd Rubidium nuclei	Surbhi Gupta, Suram Singh, Amit Kumar, Anuradha Gupta, Arun Bharti, G.H. Bhat, and J.A. Sheikh	Physics and Astronomical Sciences	Chinese Journal of Physics	2019	0577-9073	<a href="https://doi.org/10.1016/j.cjph.2018.11.007">https://doi.org/10.1016/j.cjph.2018.11.007</a>			
Gold (Au)-Doped Lead Sulfide-Polyvinyl Alcohol (PbS-PVA) Nanocomposites for High-Performance, Flexible Memristors	Surbhi Pathania, Jehova Jire L Hmar, Vinay Kumar, Onkar Nath Verma, Tanuj Kumar, Chinnamuthu Paulsamy	Physics and Astronomical Sciences	Journal of Electronic materials	2022 2023	0957-4522	<a href="https://link.springer.com/article/10.1007/s11664-022-09740-2">https://link.springer.com/article/10.1007/s11664-022-09740-2</a>			
Spherical gravitational collapse in 4D Einstein–Gauss–Bonnet theory	Suresh C. Jaryal and Ayan Chatterjee	Physics and Astronomical Sciences	Physics of Dark Universe	2023	2212-6864	<a href="https://doi.org/10.1016/j.dark.2023.101171">https://doi.org/10.1016/j.dark.2023.101171</a>			
Effects of electromagnetic field on a radiating star	Suresh C. Jaryal, Ayan Chatterjee and Akshay Kumar	Physics and Astronomical Sciences	European Physical Journal C	2023	1434-6052	To be published			
Self-organized nanopatterning of Si (100) surface using ion beam irradiation	Vandana, Tanuj Kumar, Jyoti, Amit Tomar, Indra Sulania, D. Kanjilal and Shyam Kumar	Physics and Astronomical Sciences	AIP Conference Proceedings	2018	0094243X	<a href="https://doi.org/10.1063/1.5051304">https://doi.org/10.1063/1.5051304</a>			
Quasiparticle structure of low-lying yrast energy levels and $\gamma$ -bands in <sup>164-174</sup> Hf nuclei,	VeertaRani, SuramSingh, ManviRajputPreeti Verma, ArunBharti G.H.Bhat J.A.Sheikh	Physics and Astronomical Sciences	The European Physical Journal A	2021	2470-0045	<a href="http://dx.doi.org/10.1140/epja/s10050-021-00583-9">http://dx.doi.org/10.1140/epja/s10050-021-00583-9</a>			
Thermoluminescence studies of CaS: Bi nanocrystalline phosphors	Vinay Kumar and co- authors	Physics and Astronomical Sciences	Journal of Physics D: Applied Physics	2006	0022-3727	10.1088/0022-3727/39/24/007			
Synthesis and characterization of bismuth doped calcium sulfide nanocrystallites	Vinay Kumar and co- authors	Physics and Astronomical Sciences	Journal of Physics: Condensed Matter	2006	0953-8984	10.1088/0953-8984/18/22/003			
Thermo luminescence and dosimetric properties of bismuth doped CaS nanocrystalline phosphor	Vinay Kumar and co- authors	Physics and Astronomical Sciences	Radiation Effects & Defects in Solids	2006	1042-0150	<a href="https://doi.org/10.1080/10420150600800597">https://doi.org/10.1080/10420150600800597</a>			
Swift heavy ion induced structural modification and photo-luminescence in CaS: Bi nanophosphors	Vinay Kumar and co- authors	Physics and Astronomical Sciences	J. Nanoparticle Research	2007	1388-0764	DOI 10.1007/s11051-006-9189-z			
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Thermoluminescence response of CaS: Bi 3+ nanophosphor exposed to 200MeV Ag+15 ion beam	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Optical Material	2009	0925-3467	<a href="https://doi.org/10.1016/j.optmat.2009.06.018">https://doi.org/10.1016/j.optmat.2009.06.018</a>			
A surface chemical behaviour investigation of a promising low voltage cathodoluminescent LiSrBO3:Sm3+ phosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Luminescence: Wiley science	2010	1522-7235				
Luminescence characterization and electron beam induced chemical changes on the surface of ZnAl2O4:Mn nanocrystalline phosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Appl. Surf. Sci.	2010	0169-4332	<a href="https://doi.org/10.1016/j.apsusc.2010.11.006">https://doi.org/10.1016/j.apsusc.2010.11.006</a>			
Surface chemical reactions during electron beam irradiation of nanocrystalline CaS: Ce3+ phosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	J.Appl. Physics	2010	0021-8979	<a href="http://dx.doi.org/10.1063/1.3446828">http://dx.doi.org/10.1063/1.3446828</a>			
Synthesis of Ce3+ doped SrS nanocrystalline phosphors using a simple aqueous method	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Letters	2010	0167-577X.	<a href="https://doi.org/10.1016/j.matlet.2010.01.002">https://doi.org/10.1016/j.matlet.2010.01.002</a>			
Electron beam induced green luminescence and degradation study of CaS:Ce nanocrystalline phosphors for FED Applications	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Appl. Surf. Sci.	2010	0169-4332	<a href="https://doi.org/10.1016/j.apsusc.2009.09.101">https://doi.org/10.1016/j.apsusc.2009.09.101</a>			
Auger electron spectroscopy and X-ray photoelectron spectroscopy study of the electron-stimulated surface chemical reaction mechanism for phosphor degradation	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Surface and Interface Analysis	2010	0142-2421	<a href="http://dx.doi.org/10.1002/sia.3282">http://dx.doi.org/10.1002/sia.3282</a>			
Photoluminescence properties of SrAl2O4: Eu2+, Dy3+ thin phosphor films grown by pulsed laser deposition	Vinay Kumar and co-authors	Physics and Astronomical Sciences	J. Vac. Sci. Technol.	2010	0734-2101	<a href="https://doi.org/10.1116/1.3299255">https://doi.org/10.1116/1.3299255</a>			
Combustion synthesis and luminescence investigation of Na3Al2(PO4)3: RE (RE= Ce3+, Eu3+ and Mn2+) phosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2010	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2009.11.110">https://doi.org/10.1016/j.jallcom.2009.11.110</a>			
Luminescence investigations of Ce3+ doped CaS nanophosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2010	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2009.11.076">https://doi.org/10.1016/j.jallcom.2009.11.076</a>			
Dependence of Eu3+ luminescence dynamics on the structure of the combustion synthesized Sr5(PO4)3 F host	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2011	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2010.11.086">https://doi.org/10.1016/j.jallcom.2010.11.086</a>			
Cathodoluminescent properties and surface characterization of bluish-white LiAl5O8: Tb phosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Applied Physics	2011	0021-8979	<a href="https://doi.org/10.1063/1.3530607">https://doi.org/10.1063/1.3530607</a>			
Luminescence characterization and electron beam induced chemical changes on the surface of ZnAl2O4: Mn nanocrystalline phosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Applied Surface Science	2011	0169-4332	<a href="https://doi.org/10.1016/j.apsusc.2010.11.006">https://doi.org/10.1016/j.apsusc.2010.11.006</a>			
Investigations on the low voltage cathodoluminescence stability and surface chemical behaviour using Auger and X-ray photoelectron spectroscopy on LiSrBO3: Sm3+ phosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Research Bulletin	2011	0025-5408	<a href="https://doi.org/10.1016/j.materresbull.2011.03.022">https://doi.org/10.1016/j.materresbull.2011.03.022</a>			
Luminescence investigations on LiAl5O8: Tb 3+ nanocrystalline phosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Current Applied Physics	2011	1567-1739	<a href="https://doi.org/10.1016/j.cap.2010.08.002">https://doi.org/10.1016/j.cap.2010.08.002</a>			

Luminescence response and CL degradation of combustion synthesized spherical SiO <sub>2</sub> : Ce nanophosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Research Bulletin	2011	0025-5408			
Synthesis, spectral and surface investigation of NaSrBO <sub>3</sub> : Sm <sup>3+</sup> phosphor for full color down conversion in LEDs	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2013	0925-8388	<a href="http://dx.doi.org/10.1016/j.jallcom.2012.11.125">http://dx.doi.org/10.1016/j.jallcom.2012.11.125</a>		
X-ray absorption spectroscopy and photoluminescence study of rare earth ions doped strontium sulphide phosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Applied Surface Science	2013	0169-4332	<a href="https://doi.org/10.1016/j.apsusc.2012.10.007">https://doi.org/10.1016/j.apsusc.2012.10.007</a>		
Spectral and surface investigations of Mn <sup>2+</sup> doped SrZnO <sub>2</sub> nanocrystalline phosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Material Science	2013	0022-2461	DOI 10.1007/s10853-012-7121-8		
Spectral and surface investigations on SrZnO <sub>2</sub> : Tb <sup>3+</sup> nanophosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Integrated Science and Technology	2013	2321-4635			
Thermo-luminescence kinetic parameters of $\gamma$ -irradiated Sr <sub>4</sub> Al <sub>14</sub> O <sub>25</sub> : Eu <sup>2+</sup> , Dy <sup>3+</sup> phosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Radiation Effects & Defects in Solids	2013	1042-0150	<a href="https://doi.org/10.1080/10420150.2013.784910">https://doi.org/10.1080/10420150.2013.784910</a>		
Application of He-Ne Laser to Study of the Variation of Refractive Index of Liquid Solutions with the Concentration	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Integrated Science and Technology	2013	2321-4635			
Luminescence and surface properties of Tb <sup>3+</sup> doped Sr <sub>3</sub> (VO <sub>4</sub> ) <sub>2</sub> nanophosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Integrated Science and Technology	2013	2321-4635			
Thermoluminescence Response of Gamma Irradiated SrAl <sub>2</sub> O <sub>4</sub> : Eu <sup>2+</sup> /Dy <sup>3+</sup> Nanophosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	International Journal of Modern Physics	2013	0129-1831	<a href="http://dx.doi.org/10.1142/S2010194513010386">http://dx.doi.org/10.1142/S2010194513010386</a>		
Spectral and surface investigations of Ca <sub>2</sub> V <sub>2</sub> O <sub>7</sub> :Eu <sup>3+</sup> nanophosphors prepared by citrate-gel combustion method: a potential red-emitting phosphor for near UV light-emitting diodes	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Applied Physics A	2014	1432-0630	<a href="http://dx.doi.org/10.1007/s00339-014-8331-5">http://dx.doi.org/10.1007/s00339-014-8331-5</a>		
TOF SIMS analysis and enhanced UVB photoluminescence by energy transfer from Pr <sup>3+</sup> to Gd <sup>3+</sup> in Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> :Gd <sup>3+</sup> , Pr <sup>3+</sup> phosphor prepared by urea assisted combustion	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2014	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2014.01.088">https://doi.org/10.1016/j.jallcom.2014.01.088</a>		
Spectral and surface investigations on Eu <sup>3+</sup> doped K <sub>3</sub> Y(PO <sub>4</sub> ) <sub>2</sub> nanophosphor: A promising orange-red phosphor for white light-emitting diodes	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Optical Materials	2014	9253467	<a href="http://dx.doi.org/10.1016/j.optmat.2014.01.008">http://dx.doi.org/10.1016/j.optmat.2014.01.008</a>		
Spectroscopic studies of cholesterol: Fourier transform infrared and vibrational frequency analysis	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Focus	2014	2169-4303	<a href="https://doi.org/10.1166/mat.2014.1161">https://doi.org/10.1166/mat.2014.1161</a>		
Photoluminescence and thermoluminescence properties of Tb <sup>3+</sup> doped K <sub>3</sub> Gd(PO <sub>4</sub> ) <sub>2</sub> nanophosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Research Bulletin	2014	0025-5408	<a href="https://doi.org/10.1016/j.materresbull.2014.09.001">https://doi.org/10.1016/j.materresbull.2014.09.001</a>		
Applications of AES, XPS and TOF SIMS to phosphor materials	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Surface and Interface Analysis	2014	1096-9918	<a href="http://dx.doi.org/10.1016/j.surfin.2014.01.008">Applications of AES, XPS and TOF SIMS to phosphor materials - Swart - 2014 - Surface and Interface Analysis - Wiley Online Library</a>		
A promising orange-red emitting nanocrystalline NaCaBO <sub>3</sub> : Sm <sup>3+</sup> phosphor for solid state lighting	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Research Express	2014	2053-1591	10.1088/2053-1591/1/1/015006		

Importance of Laser Induced Breakdown Spectroscopy for Biomedical Applications: A Comprehensive Review	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Focus	2014	2169-4303	<a href="http://dx.doi.org/10.1166/mat.2014.1162">http://dx.doi.org/10.1166/mat.2014.1162</a>		
Synthesis and photoluminescence properties of Ca <sub>3</sub> B <sub>2</sub> O <sub>6</sub> :Tb <sup>3+</sup> nanophosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	AIP Conference Proceedings	2014	1551-7616	<a href="http://dx.doi.org/10.1063/1.4872653">http://dx.doi.org/10.1063/1.4872653</a>		
Synthesis and photoluminescence study of Dy <sup>3+</sup> doped Sr <sub>3</sub> B <sub>2</sub> O <sub>6</sub> Nanophosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	AIP Conference Proceedings	2014	1551-7616	<a href="http://dx.doi.org/10.1063/1.4872673">http://dx.doi.org/10.1063/1.4872673</a>		
Tunable and white emission from ZnO:Tb <sup>3+</sup> nanophosphors for solid state lighting applications	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Chemical Engineering Journal	2014	1385-8947	<a href="https://doi.org/10.1016/j.cej.2014.06.027">https://doi.org/10.1016/j.cej.2014.06.027</a>		
Potential of Sr <sub>4</sub> Al <sub>14</sub> O <sub>25</sub> : Eu <sup>2+</sup> , Dy <sup>3+</sup> inorganic oxide-based nanophosphor in Latent fingerprint detection	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Material Science	2014	15734803	DOI 10.1007/s10853-013-7916-2		
Enhanced UVB emission and analysis of chemical states of Ca <sub>5</sub> (PO <sub>4</sub> ) <sub>3</sub> OH:Gd <sup>3+</sup> , Pr <sup>3+</sup> phosphor prepared by co-precipitation	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Physics and Chemistry of Solids	2014	0022-3697	<a href="https://doi.org/10.1016/j.jpcs.2014.04.015">https://doi.org/10.1016/j.jpcs.2014.04.015</a>		
Swift heavy ion induced structural, optical and luminescence modification in NaSrBO <sub>3</sub> :Dy <sup>3+</sup> phosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Material Science	2014	1573-4803	DOI 10.1007/s10853-014-8367-0		
TOF SIMS analysis and enhanced UVB photoluminescence by energy transfer from Pr <sup>3+</sup> to Gd <sup>3+</sup> in Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> :Gd <sup>3+</sup> , Pr <sup>3+</sup> phosphor prepared by urea assisted combustion	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2014	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2014.01.088">https://doi.org/10.1016/j.jallcom.2014.01.088</a>		
Photoluminescence and thermoluminescence properties of Tb <sup>3+</sup> doped K <sub>3</sub> Gd(PO <sub>4</sub> ) <sub>2</sub> nanophosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Research Bulletin	2014	0025-5408	<a href="https://doi.org/10.1016/j.materresbull.2014.09.001">https://doi.org/10.1016/j.materresbull.2014.09.001</a>		
Importance of laser-induced breakdown spectroscopy for hard tissues (bone, teeth) and other calcified tissue materials	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Lasers in Medical Science	2015	1435-604X	<a href="https://doi.org/10.1007/s10103-014-1549-9">https://doi.org/10.1007/s10103-014-1549-9</a>		
A near UV-converted LiMgBO <sub>3</sub> :Dy <sup>3+</sup> nanophosphor: surface and spectral investigations	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Applied Surface Science	2015	0169-4332	<a href="https://doi.org/10.1016/j.apsusc.2014.12.056">https://doi.org/10.1016/j.apsusc.2014.12.056</a>		
Crystal structure and kinetic studies of gamma exposed Ca <sub>3</sub> B <sub>2</sub> O <sub>6</sub> :Tb <sup>3+</sup> Nanophosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Indian Journal of Physics	2015	0974-9845	<a href="http://dx.doi.org/10.1007/s12648-015-0657-0">http://dx.doi.org/10.1007/s12648-015-0657-0</a>		
Enhanced orange-red emission from K <sub>2</sub> SrVO <sub>4</sub> :Sm <sup>3+</sup> nanophosphor for possible application in blue light-emitting diode based white LED	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Material Research express	2015	20531591	10.1088/2053-1591/2/2/025010		
Experimental and Theoretical Spectroscopic Studies of Calcium Carbonate (CaCO <sub>3</sub> )	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Focus	2015	2169-4303	<a href="http://dx.doi.org/10.1166/mat.2015.1233">http://dx.doi.org/10.1166/mat.2015.1233</a>		
Photoluminescence and thermoluminescence investigations of Ca <sub>3</sub> B <sub>2</sub> O <sub>6</sub> : Sm <sup>3+</sup> phosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Material Research express	2015	20531591	10.1088/2053-1591/2/7/075008		
Energy transfer mechanism from Gd <sup>3+</sup> to Sm <sup>3+</sup> in K <sub>3</sub> Gd(PO <sub>4</sub> ) <sub>2</sub> :Sm <sup>3+</sup> Phosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Material Research Express	2015	20531591	10.1088/2053-1591/2/7/076202		
Luminescence, optical and surface studies of green emitting KCaBO <sub>3</sub> :Tb <sup>3+</sup> nanophosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	International Journal of Luminescence and Applications	2015	2277-6362			
Synthesis and thermoluminescence studies of gamma ray induced Ca <sub>3</sub> B <sub>2</sub> O <sub>6</sub> :Bi <sup>3+</sup> nanophosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	International Journal of Luminescence and Applications	2015	0022-2313			

Orange-Red Emitting Pr <sup>3+</sup> Doped NaSrBO <sub>3</sub> Nanophosphors: Luminescence and Optical Studies	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Focus	2015	2169-4303	<a href="https://doi.org/10.1166/mat.2015.1265">https://doi.org/10.1166/mat.2015.1265</a>			
Thermoluminescence and kinetic parameters of $\gamma$ -exposed Sr <sub>3</sub> B <sub>2</sub> O <sub>6</sub> :Sm <sup>3+</sup> nanophosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	International Journal of Luminescence and Applications	2015	2277-6362				
Discrimination of various paper types using diffuse reflectance ultraviolet–visible near-infrared (UV-VIS-nIR) spectroscopy: forensic application to questioned documents	Vinay Kumar and co-authors	Physics and Astronomical Sciences	International Journal of Luminescence and Applications	2015	0022-2313	<a href="https://doi.org/10.1366/14-07663">https://doi.org/10.1366/14-07663</a>			
A novel yellowish white Dy <sup>3+</sup> activated $\alpha$ -Al <sub>2</sub> O <sub>3</sub> phosphor: photoluminescence and optical studies	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Functional Materials Letters	2015	0022-2313	<a href="https://doi.org/10.1142/S1793604715500617">https://doi.org/10.1142/S1793604715500617</a>			
Surface and spectral studies of Eu <sup>3+</sup> doped $\alpha$ -Al <sub>2</sub> O <sub>3</sub> synthesized via solution combustion synthesis”	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Advanced Powder Technology	2015	0921-8831	<a href="https://doi.org/10.1016/j.appt.2015.06.009">https://doi.org/10.1016/j.appt.2015.06.009</a>			
Elemental and Molecular Analysis of Gallstones using Wave-Dispersive X-Ray Fluorescence and Fourier Transform Infra-red Spectroscopy	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Advanced Science Letters	2015	1936-7317	<a href="https://doi.org/10.1166/asl.2015.6413">https://doi.org/10.1166/asl.2015.6413</a>			
Acombined experimental and density functional theory computational studies on curcumin: A bio-active ingredient of rhizome turmeric	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Material Focus	2015	2169-429X	<a href="https://doi.org/10.1166/mat.2015.1272">https://doi.org/10.1166/mat.2015.1272</a>			
Orange-Red Emitting Pr <sup>3+</sup> Doped NaSrBO <sub>3</sub> Nanophosphors: Luminescence and Optical Studies	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Material Focus	2015	2169-429X	<a href="https://doi.org/10.1166/mat.2015.1265">https://doi.org/10.1166/mat.2015.1265</a>			
Thermoluminescence of calcium phosphate co-doped with gadolinium and praseodymium	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Radiation Measurements	2015	1350-4487	<a href="https://doi.org/10.1016/j.radmeas.2015.04.018">https://doi.org/10.1016/j.radmeas.2015.04.018</a>			
Effect of alkali metal ions (Li <sup>+</sup> , Na <sup>+</sup> and K <sup>+</sup> ) on the luminescence properties of CaMgB <sub>2</sub> O <sub>5</sub> :Sm <sup>3+</sup> nanophosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Nano-Structures & Nano Objects	2015	2352-507X	<a href="https://doi.org/10.1016/j.nanoso.2015.06.003">https://doi.org/10.1016/j.nanoso.2015.06.003</a>			
Spectroscopic studies and quantum chemical investigations of (3,4-dimethoxybenzylidene) propanedinitrile	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Spectrochimica Acta Part A: Mole. Bimol. Spectroscopy	2015	1386-1425	<a href="https://doi.org/10.1016/j.saa.2014.12.063">https://doi.org/10.1016/j.saa.2014.12.063</a>			
Multi-spectroscopic analysis of cholesterol gallstone using TOF-SIMS, FTIR and UV–Vis spectroscopy	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Appl. Phys. B	2015	1432-0649	<a href="https://doi.org/10.1007/s00340-015-6200-3">https://doi.org/10.1007/s00340-015-6200-3</a>			
Surface and thermoluminescence study of Dy <sup>3+</sup> doped Sr <sub>3</sub> B <sub>2</sub> O <sub>6</sub> nanocrystalline phosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Advance Materials Letter	2015	0976-3961	<a href="https://doi.org/10.5185/amlett.2015.5868">https://doi.org/10.5185/amlett.2015.5868</a>			
The influence of Ag <sup>9+</sup> ion irradiation on the structural, optical and luminescence properties of Sm <sup>3+</sup> doped NaSrBO <sub>3</sub> : Stability of color emission	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Nuclear Instruments and Methods in Physics Research B	2015	0168-583X	<a href="https://doi.org/10.1016/j.nimb.2015.03.088">https://doi.org/10.1016/j.nimb.2015.03.088</a>			
Thermoluminescence and glow curves analysis of $\gamma$ -exposed Eu <sup>3+</sup> doped K <sub>3</sub> Y(PO <sub>4</sub> ) <sub>2</sub> nanophosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Research Bulletin	2016	0025-5408	<a href="https://doi.org/10.1016/J.MATERRESBULL.2015.08.030">https://doi.org/10.1016/J.MATERRESBULL.2015.08.030</a>			
Eu <sup>2+</sup> ,Dy <sup>3+</sup> codoped SrAl <sub>2</sub> O <sub>4</sub> nanocrystalline phosphor for latent fingerprint detection in forensic applications	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Research Express	2016	2053-1591	<a href="http://dx.doi.org/10.1088/2053-1591/3/1/015004">http://dx.doi.org/10.1088/2053-1591/3/1/015004</a>			

Structural, surface and luminescence properties of Ca <sub>3</sub> B <sub>2</sub> O <sub>6</sub> :Dy <sup>3+</sup> phosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Ceramic International	2016	0272-8842	<a href="https://doi.org/10.1016/j.ceramint.2015.12.107">https://doi.org/10.1016/j.ceramint.2015.12.107</a>			
Surface and spectral studies of green emitting Sr <sub>3</sub> B <sub>2</sub> O <sub>3</sub> :Tb <sup>3+</sup> phosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Electron Spectroscopy	2016	0368-2048	<a href="http://dx.doi.org/10.1016/j.elspec.2015.11.011">http://dx.doi.org/10.1016/j.elspec.2015.11.011</a>			
Relaxations in gelatin hydrogels probed by dynamic light scattering	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Advance Materials Letter	2016		<a href="https://doi.org/10.5185/amlett.2016.6012">https://doi.org/10.5185/amlett.2016.6012</a>			
NaSrVO <sub>4</sub> :Sm <sup>3+</sup> -A n-UV convertible phosphor to fill the quantum efficiency gap for LED applications	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Ceramic International	2016	0272-8842	<a href="https://doi.org/10.1016/j.ceramint.2015.10.027">https://doi.org/10.1016/j.ceramint.2015.10.027</a>			
Effect of swift heavy ion irradiation on structural, optical and luminescence properties of SrAl <sub>2</sub> O <sub>4</sub> :Eu <sup>2+</sup> , Dy <sup>3+</sup> nanophosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Radiation Physics and Chemistry	2016	0969-806X	<a href="https://doi.org/10.1016/j.radphyschem.2016.01.017">https://doi.org/10.1016/j.radphyschem.2016.01.017</a>			
Analysis of heterogeneous gallstones using laser-induced breakdown spectroscopy (LIBS) and wavelength dispersive X-ray fluorescence (WD-XRF)	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Lasers in Medical Science	2016	1435-604X	DOI 10.1007/s10103-016-1905-z			
Thermoluminescence response of 120MeV Ag <sup>9+</sup> and γ-ray exposed LiMgBO <sub>3</sub> : Dy <sup>3+</sup> nanophosphors for dosimetry	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Ceramics International	2016	0272-8842	<a href="https://doi.org/10.1016/j.ceramint.2016.08.191">https://doi.org/10.1016/j.ceramint.2016.08.191</a>			
Investigation of thermoluminescence and kinetic parameters of CaMgB <sub>2</sub> O <sub>5</sub> : Dy <sup>3+</sup> nanophosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	AIP Conference Proceedings	2016	0094243X	<a href="https://doi.org/10.1063/1.4946702">https://doi.org/10.1063/1.4946702</a>			
A novel orange-red emitting NaCaVO <sub>4</sub> :Sm <sup>3+</sup> phosphor for solid state lighting	Vinay Kumar and co-authors	Physics and Astronomical Sciences	AIP Conference Proceedings	2016	0094243X	<a href="http://dx.doi.org/10.1063/1.4946603">http://dx.doi.org/10.1063/1.4946603</a>			
Thermoluminescence and glow curves analysis of γ-exposed Eu <sup>3+</sup> doped K <sub>3</sub> Y (PO <sub>4</sub> ) <sub>2</sub> nanophosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Research Bulletin	2016	1873-4227	<a href="https://doi.org/10.1016/j.materresbull.2015.08.030">https://doi.org/10.1016/j.materresbull.2015.08.030</a>			
Spectral properties of Dy <sup>3+</sup> doped ZnAl <sub>2</sub> O <sub>4</sub> phosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	AIP Conference Proceedings	2017	0094-243X	<a href="https://doi.org/10.1063/1.5032375">https://doi.org/10.1063/1.5032375</a>			
spectral and surface investigation of novel CaMgB <sub>2</sub> O <sub>5</sub> : Dy <sup>3+</sup> nanophosphor for UV based white LEDs	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Research Bulletin	2017	0025-5408	<a href="https://doi.org/10.1016/j.materresbull.2017.03.037">https://doi.org/10.1016/j.materresbull.2017.03.037</a>			
Investigation of thermoluminescence response and trapping parameters of 120 MeV Ag <sup>9+</sup> and γ-ray exposed NaSrBO <sub>3</sub> : Dy <sup>3+</sup> phosphor for dosimetry	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2017	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2016.09.002">https://doi.org/10.1016/j.jallcom.2016.09.002</a>			
Charge compensated derived enhanced red emission from Sr <sub>3</sub> (VO <sub>4</sub> ) <sub>2</sub> : Eu <sup>3+</sup> nanophosphors for white light emitting diodes and flat panel displays	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2017	0925-8388	<a href="http://dx.doi.org/10.1016/j.jallcom.2017.03.139">http://dx.doi.org/10.1016/j.jallcom.2017.03.139</a>			
Investigation of thermoluminescence characteristics of NaSrBO <sub>3</sub> : Sm <sup>3+</sup> phosphor against 120MeV Ag <sup>9+</sup> ion and γ-ray irradiation prepared by different methods	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Luminescence	2017	0022-2313	<a href="https://doi.org/10.1016/j.jlumin.2017.03.068">https://doi.org/10.1016/j.jlumin.2017.03.068</a>			
Synthesis and trobological investigation of Al-SiC based nano hybrid composite	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Alexandria Engineering Journal	2017	1110-0168	<a href="https://doi.org/10.1016/j.aej.2017.05.008">https://doi.org/10.1016/j.aej.2017.05.008</a>			

Fourier transform infrared spectroscopy and chemometrics for the characterization and discrimination of writing/photocopier paper types: Application in forensic document examinations	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Spectrochimica Acta Part A	2017	1386-1425	<a href="https://doi.org/10.1016/j.saa.2016.06.042">https://doi.org/10.1016/j.saa.2016.06.042</a>			
Spectroscopic investigation of wheat grains (Triticum aestivum) infected by wheat seed gall nematodes (Anguina tritici)	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Biocatalysis and Agricultural Biotechnology	2017	1878-8181	<a href="https://doi.org/10.1016/j.bcab.2016.11.005">https://doi.org/10.1016/j.bcab.2016.11.005</a>			
structural and luminescence studies of LiSrVO4:Sm3+ nanophosphor to fill amber gap in LEDs under n-UV excitation	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Materials Science: Materials in Electronics	2017	0957-4522	<a href="https://link.springer.com/article/10.1007/s10854-016-6294-3">https://link.springer.com/article/10.1007/s10854-016-6294-3</a>			
Charge compensated derived enhanced red emission from Sr3(VO4)2:Eu3+ nanophosphors for white light emitting diodes and flat panel displays	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2017	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2017.03.139">https://doi.org/10.1016/j.jallcom.2017.03.139</a>			
Organic additive assisted hydrothermal synthesis and photoluminescence properties of CeF3:Tb3+ and NaCeF4:Tb3+ nanoparticles	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Materials Science: Materials in Electronics	2017	0957-4522	<a href="https://link.springer.com/article/10.1007/s10854-017-6970-y">https://link.springer.com/article/10.1007/s10854-017-6970-y</a>			
Analysis of writing/ printing paper via Thermogravimetric Analysis: Application in forensic science	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Australian Journal of Forensic Sciences	2017		<a href="https://doi.org/10.1080/00450618.2017.1310921">https://doi.org/10.1080/00450618.2017.1310921</a>			
A potential green emitting citrate gel synthesized NaSrBO3:Tb3+ phosphor for display application	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Physica B: Condensed Matter	2017	0921-4526	<a href="https://doi.org/10.1016/j.physb.2017.07.034">https://doi.org/10.1016/j.physb.2017.07.034</a>			
Potential of Sm3+ doped LiSrVO4 nanophosphor to fill amber gap in LEDs	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Physica B: Condensed Matter	2017	0921-4526	<a href="https://doi.org/10.1016/j.physb.2017.07.040">https://doi.org/10.1016/j.physb.2017.07.040</a>			
Optical properties of Sr3B2O6:Dy3+/PMMA polymer nanocomposites	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Physica B: Condensed Matter	2017	0921-4527	<a href="https://doi.org/10.1016/j.physb.2017.07.033">https://doi.org/10.1016/j.physb.2017.07.033</a>			
Combustion synthesis and characterization of blue long lasting phosphor CaAl2O4: Eu2+, Dy3+ and its novel application in latent fingerprint and lip mark detection	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Physica B: Condensed Matter	2017	0921-4528	<a href="https://doi.org/10.1016/j.physb.2017.07.019">https://doi.org/10.1016/j.physb.2017.07.019</a>			
A novel orange-red emitting Ba2Ca(BO3)2: Sm3+ phosphor to fill the amber gap in LEDs: Synthesis, structural and luminescence characterizations	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Current Applied Physics	2017	1567-1739	<a href="https://doi.org/10.1016/j.cap.2017.07.015">https://doi.org/10.1016/j.cap.2017.07.015</a>			
Influence of an adjoining cation on the luminescence performance of the Dy3+ doped A3Gd(PO4)2; (A= Na, K) phosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2020	0925-8388	<a href="http://dx.doi.org/10.1016/j.jallcom.2020.156352">http://dx.doi.org/10.1016/j.jallcom.2020.156352</a>			
Red emitting non-rare earth doped LiMgBO3 phosphor for light emitting diodes	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2020	0925-8388	<a href="http://dx.doi.org/10.1016/j.jallcom.2020.154622">http://dx.doi.org/10.1016/j.jallcom.2020.154622</a>			
Surface and luminescent properties of Mg3(PO4)2:Dy3+ phosphors	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Optik	2020	0030-4026	<a href="http://dx.doi.org/10.1016/j.ijleo.2020.165717">http://dx.doi.org/10.1016/j.ijleo.2020.165717</a>			
The structural and spectral study of LiSrVO4: Tb3+ phosphor for UV-shifted imaging devices	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Material Today's Proceedings	2020	0957-4523	<a href="https://doi.org/10.1016/j.matpr.2019.12.342">https://doi.org/10.1016/j.matpr.2019.12.342</a>			



Investigation of thermoluminescence response and kinetic parameters of CaMgB <sub>2</sub> O <sub>5</sub> : Tb <sup>3+</sup> phosphor against UV-C radiation for dosimetric application	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Materials Science	2021	0957-4522	<a href="https://doi.org/10.1007/s10854-021-06273-y">https://doi.org/10.1007/s10854-021-06273-y</a>		
Study of luminescence from terbium doped strontium borate nanophosphors in PMMA	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Applied Physics A: Materials Science and Processing	2021	0947-8396	<a href="https://doi.org/10.1007/s00339-021-04340-z">https://doi.org/10.1007/s00339-021-04340-z</a>		
Spectral, surface and thermometric investigations of upconverting Er <sup>3+</sup> /Yb <sup>3+</sup> co-doped Na <sub>3</sub> Y(PO <sub>4</sub> ) <sub>2</sub> phosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2021	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2021.160327">https://doi.org/10.1016/j.jallcom.2021.160327</a>		
Sr <sub>4</sub> Al <sub>14</sub> O <sub>25</sub> : Eu <sup>2+</sup> , Dy <sup>3+</sup> @ZnO nanocomposites as highly efficient visible light photocatalysts for the degradation of aqueous methyl orange	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2021	0925-8388	<a href="https://doi.org/10.1016/j.jallcom.2020.158370">https://doi.org/10.1016/j.jallcom.2020.158370</a>		
Structural and luminescence characterization of thermally stable orange-red emitting LiSrP <sub>3</sub> O <sub>9</sub> :Sm <sup>3+</sup> phosphor to fill the amber gap in WLEDs	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Displays	2022	0141-9382	<a href="https://doi.org/10.1016/j.displa.2022.102302">https://doi.org/10.1016/j.displa.2022.102302</a>		
Structural and spectral investigation of a near-UV-converted LiSrP <sub>3</sub> O <sub>9</sub> :Dy phosphor for white light-emitting diodes	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Materials Science: Materials in Electronics	2022	0957-4522	<a href="http://dx.doi.org/10.1007/s10854-022-07782-0">http://dx.doi.org/10.1007/s10854-022-07782-0</a>		
Charge compensated CaSr <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> :Sm <sup>3+</sup> , Li <sup>+</sup> /Na <sup>+</sup> /K <sup>+</sup> phosphor: Luminescence and Thermometric studies	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2022	0925-8388	<a href="http://dx.doi.org/10.1016/j.jallcom.2022.163793">http://dx.doi.org/10.1016/j.jallcom.2022.163793</a>		
Thermometric and luminescence studies of Eu <sup>3+</sup> activated CaSr <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> phosphor for non-contact optical thermometry and solid state lighting applications	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Materials Chemistry and Physics	2022	0254-0584	<a href="http://dx.doi.org/10.1016/j.matchemphys.2022.126735">http://dx.doi.org/10.1016/j.matchemphys.2022.126735</a>		
Crystal structure and luminescence dynamics of highly pure LiM(PO <sub>3</sub> ) <sub>3</sub> :Eu <sup>3+</sup> (M = Sr, Ca) red phosphors for white light emitting diodes	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Rare Earths	2023	1002-0721	<a href="http://dx.doi.org/10.1016/j.jire.2023.08.016">http://dx.doi.org/10.1016/j.jire.2023.08.016</a>		
Effect of the Synthesis Route on Luminescence Dynamics and Thermographic Properties of Sm <sup>3+</sup> Doped Ba <sub>2</sub> Mg(Po <sub>4</sub> ) <sub>2</sub> Phosphor	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Alloys and Compounds	2023	0925-8388	<a href="http://dx.doi.org/10.2139/ssrn.4563448">http://dx.doi.org/10.2139/ssrn.4563448</a>		
Synthesis, luminescence and photometric investigation of Sr <sub>2</sub> B <sub>2</sub> O <sub>5</sub> :Dy <sup>3+</sup> phosphor for UV-based white LEDs	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Applied physics A	2023	0947-8396	<a href="http://dx.doi.org/10.1007/s00339-023-06488-2">http://dx.doi.org/10.1007/s00339-023-06488-2</a>		
KSrVO <sub>4</sub> :Tb <sup>3+</sup> -A potential green-emitting nanophosphor candidate for white LEDs	Vinay Kumar and co-authors	Physics and Astronomical Sciences	Journal of Materials Science: Materials in Electronics	2023	0957-4522	<a href="http://dx.doi.org/10.1007/s10854-022-09633-4">http://dx.doi.org/10.1007/s10854-022-09633-4</a>		
Multivariate analysis for forensic characterization, discrimination, and classification of marker pen inks,	Vishal Sharma, Raj Kumar, Karan Devgan, Pawan Kumar Mishra, Adam Ekielski, Vijay Kumar & Vinay Kumar,	Physics and Astronomical Sciences	Spectroscopy Letters,	2018	0038-7010	<a href="https://doi.org/10.1080/00387010.2018.1452265">https://doi.org/10.1080/00387010.2018.1452265</a>		
Structural evolution of yrast and near-yrast bands in even-even Pd isotopes using a self-consistent approach		Physics and Astronomical Sciences	Journal of Physics G	2021	0577-9073	<a href="http://dx.doi.org/10.1140/epip/s13360-020-01004-4">http://dx.doi.org/10.1140/epip/s13360-020-01004-4</a>		

Improved Sensitivity with Low Limit of Detection of a Hydrogen Gas Sensor Based on rGO-Loaded Ni-Doped ZnO Nanostructures	Kusum Kumari and co-authors	Physics and Astronomical Sciences	ACS Appl. Mater. Interfaces,	2018	1944-8244	<a href="https://doi.org/10.1021/acsami.7b17877">https://doi.org/10.1021/acsami.7b17877</a>			
SnO <sub>2</sub> /PANI nanocomposite electrodes for supercapacitors and lithium ion batteries	Kusum Kumari and co-authors	Physics and Astronomical Sciences	Electrochem. Energy Technol.	2018	2300-3545	<a href="https://doi.org/10.1515/eetech-2018-0004">https://doi.org/10.1515/eetech-2018-0004</a>			
Improved photocatalytic activity of carbon-based polymeric semiconductor for efficient decontamination of wastewater: Effect of reaction atmosphere and pyrolysis temperature	Kusum Kumari and co-authors	Physics and Astronomical Sciences	Optical Materials	2020	0925-3467	<a href="https://doi.org/10.1016/j.optmat.2020.110523">https://doi.org/10.1016/j.optmat.2020.110523</a>			
Enhancement in performance of ternary blend polymer solar cells using a PEDOT:PSS-graphene oxide hole transport layer via Förster resonance energy transfer and balanced charge transport,	Kusum Kumari and co-authors	Physics and Astronomical Sciences	Materials Advances	2020	2872-2887	10.1039/d0ma00532k			
Electrochemical analysis of polyaniline-graphene oxide composites for high performance supercapacitors	Kusum Kumari and co-authors	Physics and Astronomical Sciences	AIP Conference Proceedings	2020	0306-730X	<a href="https://doi.org/10.1063/5.0016905">https://doi.org/10.1063/5.0016905</a>			
Improved performance of ternary blend polymer solar cells via work function tuning and suppressed interface recombination using hybrid PEDOT:PSS-graphene oxide hole transport layer	Kusum Kumari and co-authors	Physics and Astronomical Sciences	Applied Surface Science	2021	0169-4332	<a href="https://doi.org/10.1016/j.apsusc.2020.148266">https://doi.org/10.1016/j.apsusc.2020.148266</a>			
Heat assisted facile synthesis of nanostructured polyaniline/reduced crumbled graphene oxide as a high-performance flexible electrode material for supercapacitor	Kusum Kumari and co-authors	Physics and Astronomical Sciences	Colloids and Surfaces A: Physicochemical and Engineering	2021	0927-7757	<a href="https://doi.org/10.1016/j.colsurfa.2020.125982">https://doi.org/10.1016/j.colsurfa.2020.125982</a>			
Optimal parameters for fiber Bragg gratings for sensing applications: a spectral study	Kusum Kumari and co-authors	Physics and Astronomical Sciences	SN Applied Sciences	2021	0210-4650	<a href="https://doi.org/10.1007/s42452-021-04650-0">https://doi.org/10.1007/s42452-021-04650-0</a>			
Effect of reduced fluorinated graphene oxide as ternary component on synergistically boosting the performance of polymer bulk heterojunction solar cells	Kusum Kumari and co-authors	Physics and Astronomical Sciences	Solar Energy	2021	0038-092X	<a href="https://doi.org/10.1016/j.solener.2021.07.020">https://doi.org/10.1016/j.solener.2021.07.020</a>			
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A robust approach for designing efficient nanostructured N-doped reduced graphene oxide/Polyaniline electrode materials for flexible supercapacitor,	Kusum Kumari and co-authors	Physics and Astronomical Sciences	Polymers for Advanced Technologies,	2022	2184- 2199	10.1002/pat.5670			
Spectral response of apodized fiber Bragg gratings as strain and temperature sensor,	Kusum Kumari and co-authors	Physics and Astronomical Sciences	International Journal of Modern Physics B	2022	2250-0207	10.1142/S0217979222502071			
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Synthesis and study of carbon nanomaterials through arc discharge technique for efficient adsorption of organic dyes	Kusum Kumari and co-authors	Physics and Astronomical Sciences	Diamond & Related Materials	2023	0925-9635	<a href="https://doi.org/10.1016/j.diamond.2023.110538">https://doi.org/10.1016/j.diamond.2023.110538</a>			
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